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Absence de conflit d'intérêt

Optimizing the care of older patients hospitalized through and as soon as the emergency department

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Background



- Older people remain the major consumers of hospital-based acute care services, including frail older people
 - Limited functional reserves
 - Multiple coexisting chronic and progressive diseases
 - Interaction between physical, psychological and social factors
- Their main way of admission is through the Emergency Dept. (ED)

Emergency Departments' concerns

- The number of visits to Emergency Departments (EDs) has increased over recent years
 - Overcrowding and adverse outcomes
- Older people are the fastest growing group attending EDs, especially the oldest old group
 - (un) appropriate visits ?

Main way of admission: the emergency department

Qualitative and quantitative concerns: the emergency dept. (ED) constrains and the geriatric complexity

Rapid management of an acute illness

Unforeseeable nature and 24/7 availability

Overcrowding

Multiple comorbidities and complex care needs (ψ social)

Atypical presentations

Longer LOS in ED
Fragmentation of care

Adverse outcomes after discharge

- Discharged older patients to community
 - 1 patient in 2 readmitted to ED at 6 months
 - 1 patient in 3 with functional decline (FD) at 3 months
 - 1 patient in 10 : death
 - Risk for hospitalization : x3
- Hospitalized older patients
 - Early FD (48h)
 - 1 patient in 3 with persistent FD at 3 months
 - ↑mortality,
 - ↑LOS, ↑%unplanned readmissions,
 - ↑institutionalization, ↑use health care resources

Complex interventions for OP in ED: more than 10-year research

- CGA followed by appropriate interventions, may improve outcomes in ED
 - Identify a mean of two new G problems compared with usual clinical evaluation
 - Time-consuming: CGA cannot be applied routinely in ED
- Possible solution: case-finding for frailty
 - Screening for those who are likely to benefit most = frail : avoiding wasting time and to be resource-saving

Complex interventions for OP in ED: more than 10-year research

- Existing (few) trials mainly focused on service-related outcomes >< patient-related outcomes
 - Education and training during graduation: frailty management as routine practice
 - Liaison-type service: limited evidence for efficacy
 - Frailty units: geographical concerns
- Lack of efficient screening tool: who must benefit from in-hospital CGA (geriatrics ward)?
- Few addressing the care of older people inside the ED itself: how to care for older people inside the ED?

Complex interventions for OP in ED: more than 10-year research

- Lack of efficient screening tool
 1. Hospital landscape changes: *How have specific characteristic of OP admitted from the ED evolved over a decade ?*
 2. Case-finding: *Is it possible to improve the predictive abilities of a screening tool ?*
- How to care for older people inside the ED itself ?
 3. Actual situation: *What collaborations between GD and ED in the emergency ward in Belgium ?*
 4. Fine-tuning: *how are managed OP admitted in ED ? What factors influence the quality of care in this population ?*

Screening for frail older people in the emergency department



Screening for frail older people in the emergency department

- Frail patients: who are they ?
 - No validated definition of frailty at admission to hospital
 - Risk for functional decline = loss independency in bADL
 - 1 patient in 3 with FD at 3 months after acute hospitalization
 - Frailty-related adverse outcome => QOL, mortality
 - Public health implications (services use & costs)
- Many screening tools developed in the late nineties
 - Demographic and healthcare reforms, in particular for hospitals
- Disappointing predictive accuracy and few standardization (aim, setting, participants, resources)

Screening for frail older people in the emergency department

- How to improve screening tools ?
 - Added value of including different factors associated to FD
 - Biological parameters
 - Physiologic parameters: difficult to asses in acute conditions
 - Comorbidity, ...
- Which one ? SHERPA
 - Better identification of decliners vs. non decliners
 - Explore important G concerns: cognition, falls, functionality, self-rated health (SRH)

SHERPA

		Points
History of falls in the previous year	Yes	2
	No	0
MMSE < 15/21	Yes	2
	No	0
Self-perceived in poor health	Yes	1,5
	No	0
Age	> 84yrs	3
	75 < 84yrs	1,5
	< 75 yrs	0
Premorbid IADL	0-1-2	3
	3-4	2
	5	1
	6-7	0
SCORE		0-11,5

0-3 = LOW RISK; 3,5-4,5 = MILD RISK; 5-6 = MODERATE RISK; > 6 = HIGH RISK

Cornette et al. Eur J Public Health 2006; 16: 203-08



Can we predict functional decline in hospitalized older people admitted through the emergency department? Reanalysis of a predictive tool ten years after its conception

- **Methods :**

- Prospective cohort study (≥ 75 y $n=305$; mean age $82,5 \pm 4,9$, 55% women) admitted for ≥ 48 h in non-G wards
- Outcomes: 3-month functional decline (FD)
- Analysis: logistic regression assessment
 - Goodness-of-fit
 - Calibration
 - Discrimination decliners vs. non decliners
 - Reclassification

Changes in the clinical features of older patients admitted from the emergency department

- **Changed case mix** in ten years (2 prospective cohorts (≥ 75 y): 1999, $n=253$ and 2009, $n=355$).
- Older with a **higher proportion of oldest old** (≥ 85 y)
- **More “complex”** medical and functional characteristics in 2009

Can we predict functional decline in hospitalized older people admitted through the emergency department? Reanalysis of a predictive tool ten years after its conception

- Results:

- lower discrimination of logistic model in 2009 vs. 1999

Logistic regression analysis for FD	OR 1999 [95% CI]	OR 2009 [95% CI]
History of falls in the previous year	1.86 [1.23–2.81]	1.67 [0.995-2.81]
Premorbid IADL score	0.80 [0.71–0.90]	0.85 [0.74-0.985]
MMSE <15/21	2.03 [1.20–3.41]	1.23 [0.85-1.80]*
Self-perceived in poor health	1.67 [0.99–2.78]	1.17 [0.80-1.72]
Age	1.28 [1.05–1.56]	1.01 [0.96-1.07]
Model performance	c-statistic=0,73 Goodness-of-fit p=0,91	c-statistic=0,64 Goodness-of-fit p=0,58

OR = odds ratio; 95% CI = 95% confidence interval

- No improvement by demographic, comorbidity or laboratory data available upon admission

Can we predict functional decline in hospitalized older people admitted through the emergency department? Reanalysis of a predictive tool ten years after its conception

- Main conclusions:
 - ↓ predictive ability >< changed case mix (1999-2009)**
 - Predictive factors: common G preoccupation/flags
 - No improvement of discrimination ability
- Strength: classical measures of performance and more recent way to assess discrimination improvement
- Limit: single center, non G-wards

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Care of the older people in the emergency department



Geriatric support in the emergency department: a national survey in Belgium

- **Methods**
 - An electronic cross-sectional survey in all Belgian hospitals with an ED (n=100)
 - Care aspects, collaboration, education and infrastructure; general info
- **Results (1/3)**
 - 49 GD heads (Flanders 29, Brussels 6, Wallonia 14; 5 university hospitals)
 - 12 *ED heads*

Geriatric support in the emergency department: a national survey in Belgium

- Results (2/3): $2,9 \pm 1,6$ geriatricians; 47 IGCT

	Daytime, weekday		Night		Weekend	
	GER N(%)	IGCT N(%)	GER N(%)	IGCT N(%)	GER N(%)	IGCT N(%)
	49(100)	47(100)	49(100)	47(100)	49(100)	47(100)
By phone	47 (96)	40 (85)	27 (55)	2 (4)	37 (76)	5 (11)
Bedside, after phone call						
Specific cases	47 (96)	43 (92)	22 (45)	2(4)	29 (59)	3 (6)
Systematically	16 (33)	9 (19)	2 (4)	1 (2)	4 (8)	1 (2)
On a specified moment	5 (10)	4 (9)	4 (8)	0 (0)	4 (8)	0 (0)
Continuously physically present on ED	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

GER = Geriatrician, IGCT = Inpatient Geriatric Consultation Team

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Geriatric support in the emergency department: a national survey in Belgium

- Results (3/3)
 - **Screening for frailty: 6/10 (during the day)**
 - Who ? ED nurse (8/10)
 - Why ? Context of further treatment (3/4) => 1/4 not used !
 - * *To support ED a G admission request (1/2)*
 - * *Decision to call for IGCT (2/3), geriatrician (1/3)*
 - **ED infrastructure for OP: insufficient by 69%**

Geriatric support in the emergency department: a national survey in Belgium

- Main conclusions: emerging, but limited collaboration GD-ED in Belgium
- Strength: highlight some key aspects on the current collaboration
- Limit: lack of ED views

Discussion



Main results & discussion

- Change in case mix
 - Hospital must adapt to these rapid changes
- Functional decline (hospital) less easily predictable by clinimetric tools
 - Red flags and clinical judgement
- Limited collaboration between Geriatrics and ED
 - How can these collaborations be improved ?
- ED organization is unsuited OP needs
 - Organizational concerns: “flow culture”
 - OP do not fit ED: unwelcome patients

Implications for practice

- Importance of flow to address the issue of crowding
 - To reconcile care quality and efficiency is an issue of the entire general hospital
 - Reimbursement systems that promote comprehensive care being cautious of their potential adverse effects
- Care pathway for specific presentation
- Don't waste screening for frailty but do it earlier
 - Information systems, e.g. inter-RAI instruments
- A geriatric culture of care
 - Addressing implicit bias/stereotyping in the hospital and society
 - Staffing ED with older patients-friendly carers
- Important role of the academic center in education & research

Personal considerations and thoughts

- Discussion of the ED care for older people since the late 90's: no progress
- The necessary in-depth understanding of the field: qualitative research
- To cure is not enough for quality of care: ordinary/institutional neglect is not the “prerogative” of the ED

Conclusions & perspectives

- Changes are beyond the only emergency settings and clinical features
 - Early identification of frail patients and care planning in view of their needs and preferences
 - Adaptation of the acute care to this population, at greater risk of admission than others.
- ED is currently an important event on the care path of an elderly person
- ED is a privileged place to initiate tailored care for the frailest: the geriatric flow
 - Triage: to test red-flags rather than scores
 - Collaboration: to investigate
 - More patient-centered (+relatives) and soft outcomes